



# high power, wide terminal type flat chip resistors

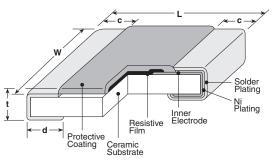




#### features

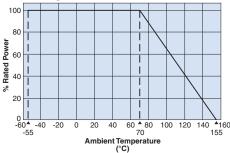
- Wide-side termination (reverse-geometry) type flat chip resistor
- High reliability and performance with T.C.R. ±100 x 10<sup>6</sup>/K, resistance tolerance ±1%
- Marking: Black protective coat
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Qualified: 0612(2B), 1020(2H), 1218(2J), 1225(3A)

### dimensions and construction

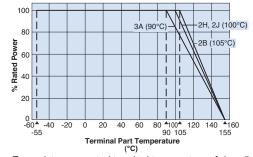


Type	Dimensions inches (mm)						
(Inch Size Code)	L	W	С	d	t		
2B (0612)	.063±.006 (1.6±0.15)	.126±.006 (3.2±0.2)	.012±.008 (0.3±0.2)	.018±.006 (0.45±0.15)			
2H (1020)	.098±.006 (2.5±0.15)	.197±.006 (5.0±0.15)	.016±.008 (0.4±0.2)		.024±.004 (0.6±0.1)		
2J (1218)	.122±.006 (3.1±0.15)	.181±.006 (4.6±0.15)	.016±.008 (0.4±0.2)	.030±.006 (0.75±0.15)			
3A (1225)	.122±.006 (3.1±0.15)	.252±.006 (6.3±0.15)	.018±.008 (0.45±0.2)				

## **Derating Curve**



For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.

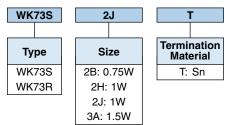


For resistors operated terminal temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve above.

Please refer to "Introduction of the derating curve based on the terminal part temperature" on the beginning of our catalog before use.

### ordering information

New Part #



# Packaging TD: 0612: 7" 4mm pitch

TE

punched paper
TE: 1020, 1218, 1225:
7" embossed plastic
TED: 1020, 1218, 1225:
10" embossed plastic
For further information on packaging, please refer to Appendix A

#### Nominal Resistance

33L0

 $\pm 1\%$ : 3 significant figures + 1 multiplier "R" indicates decimal on value <100 $\Omega$ 

 $\pm 5\%$ : 2 significant figures + 1 multiplier "R" indicates decimal on values <10  $\!\Omega$ 

All values less than  $0.1\Omega$  ( $100m\Omega$ ) are expressed in  $m\Omega$  with "L" as decimal. Ex:  $33m\Omega$ , 1% = 33L0

F				
Resistance Tolerance				
D: ±0.5%				
F: ±1%				
J: ±5%				

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

11/27/14



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# applications and ratings

Part Designation	Power Rating	T.C.R. (X 10 <sup>-6</sup> /K)	Re: D±0.5% E-24/E-96	sistance Range F±1% E-24/E-96	(Ω) J±5% E-24	Maximum Working Voltage	Maximum Overload Voltage	Rated Terminal Part Temp.	Operating Temp. Range
<b>WK73S2B</b> 0.75W (1.0W*)	±800	_	_	10m - 27m					
		±200	_	30m - 422m	30m - 390m	200V	400V	105°C	
	(1.000)	±100	_	430m - 9.76	430m - 9.1				
WK73R2B	0.75W	±100	10 - 1M	10 - 1M	10 - 1M	]			
		±800	_	_	10m - 24m				
WK73S2H 1.0W	±200	_	27m - 215m	27m - 200m					
		±100	_	220m - 9.76	220m - 9.1	200V	400V	- 100°C	-55°C to +155°C
WKZODOU	M(CZODOLI 1 0)M	±100	_	10 - 430k	10 - 430k				
WK73R2H 1.0W	1.000	±200	_	432k - 1M	470k - 1M				
		±800	_	_	10m - 30m	200V	400V		
WK73S2J 1.0\	1.0W	±200	_	33m - 237m	33m - 220m				
		±100	_	240m - 9.76	240m - 9.1				
WKZODO I	1 0\\	±100	_	10 - 510k	10 - 510k	1			
WK73R2J	1.0W	±200	_	511k - 1M	560k - 1M				
WICLOSOM		±800	_	_	10m - 20m		400V	90°C	
	1.5W (2.0W*)	±300	_	22m - 32.4m	22m - 30m				
		±200	_	33m - 357m	33m - 330m	200V			
		±100	_	360m - 9.76	360m - 9.1				
WKZ2D2A	1.5W	±100		10 - 330k	10 - 330k	]			
WK73R3A	(2.0W*)	±200	_	332k - 1M	360k - 1M				

Rated ambient temperature: +70°C

Rated voltage =  $\sqrt{\text{Power rating x resistance value}}$  or max. working voltage, whichever is lower

# environmental applications

#### **Performance Characteristics**

	Requirement Δ R ±(%+0.005Ω)			
Parameter	Limit	Typical	Test Method	
Resistance	Within specified tolerance		25°C	
T.C.R.	Within specified T.C.R.	_	+25°C/-55°C and +25°C/+125°C	
Overload (Short time)	±2%	±0.2%	Rated Voltage x 2.5 for 5 seconds	
Resistance to Solder Heat	±1%	±0.2%	260°C ± 5°C, 10 seconds ± 1 second	
Bending Test	±1%	±0.1%	Holding point 90mm, Bending 1 time, Bending 5mm	
Rapid Change of Temperature	±0.5%	±0.1%	-55°C (30 minutes), +155°C (30 minutes), 5 cycles	
Moisture Resistance	±2%	±0.2%	40°C ± 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle	
Endurance at 70°C	±2%	±0.2%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle	
High Temperature Exposure	±2%: WK73S (±5%) ±1%: all others	±0.5%: WK73S (±5%) ±0.2%: all others	+155°C, 1000 hours	

Additional environmental applications can also be found at www.koaspeer.com

<sup>\*</sup> Please refer to the "Higher Power Ratings" statement in the beginning of the catalog. Contact KOA prior to usage.